

SE



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,825	12/10/2001	Christian Bolik	DE920000124US1	7189
45216	7590	01/26/2005	EXAMINER	
KUNZLER & ASSOCIATES 8 EAST BROADWAY SUITE 600 SALT LAKE CITY, UT 84111			BHATIA, AJAY M	
			ART UNIT	PAPER NUMBER
			2145	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/015,825

Applicant(s)

BOLIK ET AL.

Examiner

Ajay M Bhatia

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/10/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. Claims 1-20 are pending.
2. Claims 1-20 are rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Cabrera et al. (U.S. Patent 6,269,382 referred to as Cabrera).
4. For claim 1, Cabrera teaches, a method of managing a hierarchical storage management (HSM) environment, the environment including at least one HSM server and at least one file server having stored a managed file system, wherein the at least one HSM server and the at least one file server are interconnected via a network and wherein digital data files are migrated temporarily from the at least one file server to the at least one HSM server, the method comprising:
 - providing at least one list for identifying candidate data files to be migrated;
 - prespecifying a scanning scope;

scanning the managed file system until the scanning scope is reached;
selecting migration candidate data files according to at least one attribute;
recording the selected migration candidate data files in the provided at least one list for identifying candidate data files; and
migrating at least part of the selected candidate data files identified in the at least one list for identifying candidate data files from the file server to the HSM server. (see Cabrera, Col. 9 line 53 to Col. 10 line 17, Col. 4 lines 8-19, Col. 10 lines 45-53)

5. For claim 2, Cabrera teaches, the method according to claim 1, wherein the scanning scope is determined by the number of candidate data files and wherein the managed file system is scanned until having reached the prespecified number of migration candidate data files. (see Cabrera, Col. 14 line 5 to Col. 15 line 25)

6. For claim 3, Cabrera teaches, the method according to claim 1, wherein the scanning scope is determined by the total amount of data for the candidate data files and wherein the managed file system is scanned until having the prespecified amount of data. (see Cabrera, Col. 10 line 65 to Col. 11 line 6)

7. For claim 4, Cabrera teaches, the method according to claim 1, wherein the scanning of the managed file system is resumed at a location of the managed file system where a previous scanning is left off, and continued accordingly. (see Cabrera, Col. 10 lines 45-53)

8. For claim 5, Cabrera teaches, the method according to claim 1, wherein replacing a migrated data file in the managed file system by a stub file providing at least information about the location of the migrated data file on the HSM server. (see Cabrera, Col. 9 line 53 to Col. 10 line 17)

9. For claim 6, Cabrera teaches, the method according to claim 1, further comprising monitoring a current state of the managed file system and initiating automigration dependent on the monitored current state of the managed file system. (see Cabrera, Col. 12 line 22-67)

10. For claim 7, Cabrera teaches, the method according to claim 6, comprising the further steps of automigrating candidate data files with respect to the list for identifying candidate data files and assigning a unique identifier to each of the migrated candidate data files. (see Cabrera, Col. 16 line 26-52)

11. For claim 8, Cabrera teaches, the method according to claim 7, wherein the unique identifier is specific to the underlying file system allowing direct access to a migrated data file. (see Cabrera, Col. 16 line 26-52)

12. For claim 9, Cabrera teaches, the method according to any of claim 6, wherein providing two lists for identifying candidate data files, whereby the first list is generated

and/or updated by a scanning process and whereby the second list is used by a automigration process, and whereby the automigration process gathers the first list from the scanning process when all candidate data files of the second list are migrated. (see Cabrera, Col. 29 lines 27-44)

13. For claim 10, Cabrera teaches, the method according to any of claim 9, wherein the automigration process is performed by a master/slave concept where the master controls the automigration process and selects at least one slave to migrate candidate data files provided by the master. (see Cabrera, Col. 13 lines 3-27)

14. For claim 11, Cabrera teaches, the method according to claim 1, comprising the additional steps of ranking and sorting the candidate data files contained in the at least one list for identifying candidate data files, in particular with respect to the a file size and/or time stamp of the data files contained in the at least one list for identifying candidate data files. (see Cabrera, Col. 10 lines 45-53)

15. For claim 12, Cabrera teaches, the method according to claim 1, wherein the scanning of the managed file system is initiated dependent on expiration of a prespecified wait interval or initiated by the automigration process. (see Cabrera, Col. 10 lines 17-30)

16. For claim 13, Cabrera teaches, a method of reconciling a managed file system migrated from a file server to an hierarchical storage management (HSM) server via a network in accordance with the method according to any of claims 7 to 12, with a current state of the managed file system on the file server, wherein data files migrated to the HSM server are recorded in a list of migrated data files having a unique identifier for each of the migrated data files, the method comprising the steps of:

querying the list of migrated data files migrated from the managed file server to the HSM server;

for each file entry in the list of migrated data files, retrieving from the managed file system at least one attribute of the migrated data file that is identified by the corresponding unique identifier;

comparing the retrieved attributes with the corresponding attributes stored in the list of migrated data files; and

updating the HSM server for the migrated managed file system dependent on the results of the preceding step of comparing. (see Cabrera, Col. 30 line 18 to Col. 31 line 62)

17. For claim 14, Cabrera teaches, the method according to claim 13, wherein performing the steps of claim 13 by a reconciling process and wherein the reconciling process requests the list of migrated data files via the network from the HSM server. (see Cabrera, Col. 30 line 18 to Col. 31 line 62)

Art Unit: 2145

18. Claims 15-20 lists all the same elements of claims 1-14, but in system and product form rather than method form. Therefore, the supporting rationale of the rejection to claims 1-14 applies equally as well to claims 15-20.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

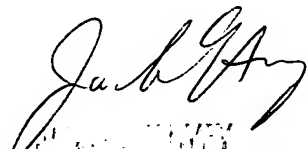
1. US-5,978,815 by Cabrera et al.
2. US-6,311,252 by Raz, Yoav
3. US-5,933,603 by Vahalia et al.
4. US-6,804,719 by Cabrera et al.
5. US-6,330,572 by Sitka, Larry
6. US-6,842,784 by Black

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ajay M Bhatia whose telephone number is (571)-272-3906. The examiner can normally be reached on M-F 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on (571)-272-3896. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB



Jacob G. Arz
SUPERVISOR OF PATENT EXAMINERS